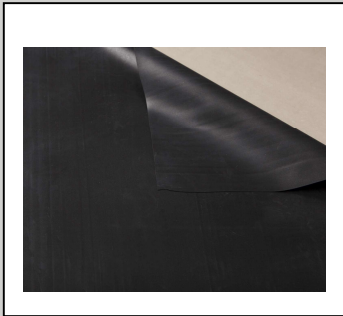


Technical Information Sheet



GeoGard™ EPDM Membrane

Item Description	Item Number
Geomembrane	Various

Description

GeoGard EPDM Membrane is a cured single-ply geomembrane designed to comply with ASTM D7465. GeoGard EPDM is nontoxic to fish and plants and is commonly used for raw water storage and canal applications in exposed or buried environments.

Product Preparation

1. Substrates must be clean, dry, smooth, and free of sharp edges, fines, loose or foreign materials, oil, grease, and other materials that may damage the geomembrane.
2. All roughened surfaces that can damage the geomembrane shall be repaired as specified to offer a smooth substrate or covered with a nonwoven protection geotextile.
3. All substrate voids greater than 6.3 mm (0.25") wide shall be properly filled with an acceptable fill material.
4. The use of a protection geotextile is recommended to prevent damage and provide a clean installation surface.

Method of Application

GeoGard EPDM Membrane must be installed in accordance with current Elevate specifications and details as well as project specific design details and specifications.

Storage

- Store away from sources of punctures and physical damage.
- Store away from ignition sources as GeoGard EPDM Membrane will burn when exposed to open flame.

Packaging

Thickness: 1.14 mm (0.045")

Weight: 1.38 kg/m² (0.28 lb/ft²)

Thickness: 1.52 mm (0.060")

Weight: 1.84 kg/m² (0.39 lb/ft²)

Precautions

1. Take care when moving, transporting, handling, etc. to avoid sources of punctures and physical damage.
2. Isolate waste products, such as petroleum products, greases, oils (mineral and vegetable) and animal fats from the geomembrane. Contact Holcim for specific recommendations.
3. Refer to Safety Data Sheets (SDS) for safety information.

LEED® Information

Post-Consumer Recycled Content: 0%

Post Industrial Recycled Content: 0%

Manufacturing Location: Prescott, AR

NOTE: LEED® is a registered trademark of the U.S. Green Building Council

Typical Properties – 1.14 mm (0.045 ") EPDM Geomembrane				
Property	Test Method	Units	ASTM D7465	
			SI	ENG
Specific Gravity	ASTM D792	gm/cc	1.16	1.16
Unit Weight	ASTM D751	kg/m ² (lb/ft ²)	1.38	.28
Thickness, Type 1	ASTM D412	mm (in)	1.14 +15/-10%	.045 +15/-10%
Tensile Strength, Die C min	ASTM D412	MPa (psi)	9.0	1305
Ultimate Elongation, Die C min	ASTM D412	%	300	300
Tear Resistance, Die C	ASTM D624	kN/m (lbf/in)	26.7	150
Puncture Resistance, Die C	ASTM D4833	N (lbs)	133	30
Resistance to Ozone: 7 days/100 @ 37.8 °C (150 °F) 50% ext.	ASTM D1148	---	---	---
Oven Aging @ 116 °C (240 °F) for 670 hrs, followed by:	ASTM D573	---	---	---
Tensile strength Die C	ASTM D412	MPa (psi)	8.3	1205
Ultimate elongation, Die C	ASTM D412	%	200	200
Tear Resistance, Die C	ASTM D624	kN/m (lbf/in)	21.9	125
Xenon Arc: for 5040 kJ/(m ² ,nm)@ 340 nm @ 80 °C (158 °F)	ASTM G155/G151	---	---	---
Visual Inspection 7X: no cracks or crazing bent loop @ 10% strain	ASTM D518	---	pass	pass
Brittleness Point	ASTM D2137	degrees	-45 °C	-49 °F
Water Absorption: Weight after immersion 166 hrs @ 70 °C (158 °F)	ASTM D471	%	+8,-2	+8,-2
Linear Dimensional Change, max	ASTM D1204	%	+/- 1.0	+/- 1.0
Chronic Toxicity Screening	EPA/600/4-	Method	pass	pass
	89/001 ASTM E729	1000.0	pass	pass
NOTE:				
1. Certified GeoGard EPDM Membrane production materials are <u>special order items</u> requiring a minimum of two weeks as production lead-time.				
2. GeoGard EPDM Membrane meets or exceeds the minimum requirements set forth by ASTM D-7465 for Type I Non-reinforced geomembrane.				

Typical Properties – 1.52 mm (0.060 ") EPDM Geomembrane

Property	Test Method	Units	ASTM D7465	
			SI	ENG
Specific Gravity	ASTM D792	gm/cc	1.16	1.16
Unit Weight	ASTM D751	kg/m ² (lb/ft ²)	1.84	.38
Thickness, Type 1	ASTM D412	mm (in)	1.52 +15/-10%	.060 +15/-10%
Tensile Strength, Die C min	ASTM D412	MPa (psi)	9.0	1305
Ultimate Elongation, Die C min	ASTM D412	%	300	300
Tear Resistance, Die C	ASTM D624	kN/m (lbf/in)	40.28	230
Puncture Resistance, Die C	ASTM D4833	N (lbs)	181.56	43
Resistance to Ozone: 7 days/100 @ 37.8 °C (150 °F) 50% ext.	ASTM D1149	---	no cracks	
Oven Aging @ 116 °C (240 °F) for 670 hrs, followed by:	ASTM D573	---	---	
Tensile strength Die C	ASTM D412	MPa (psi)	8.3	1205
Ultimate elongation, Die C	ASTM D412	%	200	200
Tear Resistance, Die C	ASTM D624	kN/m (lbf/in)	37.32	213
Xenon Arc: for 5040 kJ/(m ² ,nm)@ 340 nm @ 80 °C (158 °F)	ASTM G155/G151	---	---	
Visual Inspection 7X: no cracks or crazing bent loop @ 10% strain	ASTM D518	---	pass	
Brittleness Point	ASTM D2137	degrees	-45 °C	-49 °F
Water Absorption: Weight after immersion 166 hrs @ 70 °C (158 °F)	ASTM D471	%	+8,-2	+8,-2
Linear Dimensional Change, max	ASTM D1204	%	+/- 1.0	+/- 1.0
Chronic Toxicity Screening	EPA/600/4-89/001	Method	pass	pass
	ASTM E729	1000.0	pass	pass
NOTE:				
1. Certified GeoGard EPDM Membrane production materials are <u>special order items</u> requiring a minimum of two weeks as production lead-time.				
2. GeoGard EPDM Membrane meets or exceeds the minimum requirements set forth by ASTM D-7465 for Type I Non-reinforced geomembrane.				

Panel Sizes – 1.52 mm (0.060 ") Thickness (Packaging: Roll)

Part No.	Dimensions		Coverage		Typ. Max. Weight	
	SI Units (m)	Eng Units (ft)	SI Units (m)	Eng Units (ft)	SI Units (kg)	Eng Units (lb)
W56GM61010	3.05 x 30.48	10 x 100	92.90	1,000	214	472
W56GM61015	3.05 x 30.48	10 x 100	139.35	1,500	321	708
W56GM62010	3.05 x 30.48	10 x 100	185.81	2,000	428	944
W56GM62015	3.05 x 30.48	10 x 100	278.71	3,000	642	1416
W56GM65010	3.05 x 30.48	10 x 100	464.52	5,000	1070	2360
W56GM65015	3.05 x 30.48	10 x 100	696.77	7,500	1606	3540
W56GM65020	3.05 x 30.48	10 x 100	929.03	10,000	2140	4720

Panel Sizes - 1.14 mm (0.045 ") Thickness (Packaging: Roll)						
Part No.	Dimensions		Coverage		Typ. Max. Weight	
	SI Units (m)	Eng Units (ft)	SI Units (m)	Eng Units (ft)	SI Units (kg)	Eng Units (lb)
W56GM41010	3.05 x 30.48	10 x 100	92.90	1,000	155	342
W56GM41015	3.05 x 45.72	10 x 100	139.35	1,500	233	513
W56GM41020	3.05 x 60.96	10 x 100	185.81	2,000	310	684
W56GM42010	6.10 x 30.48	10 x 100	185.81	2,000	310	684
W56GM42015	6.10 x 45.72	10 x 100	278.71	3,000	466	1027
W56GM42510	7.62 x 30.48	10 x 100	232.26	2,500	388	856
W56GM42520	7.62 x 60.96	10 x 100	464.52	5,000	776	1711
W56GM43010	9.14 x 30.48	10 x 100	278.71	3,000	466	1027
W56GM43015	9.14 x 45.72	10 x 100	418.06	4,500	698	1540
W56GM43020	9.14 x 60.96	10 x 100	557.42	6,000	931	2053
W56GM44010	12.19 x 30.48	10 x 100	371.61	4,000	621	1369
W56GM44015	12.19 x 45.72	10 x 100	557.42	6,000	931	2053
W56GM44020	12.19 x 60.96	10 x 100	743.22	8,000	1242	2738
W56GM45010	15.24 x 30.48	10 x 100	464.52	5,000	776	1711
W56GM45015	15.24 x 45.72	10 x 100	696.77	7,500	1164	2567
W56GM45020	15.24 x 60.96	10 x 100	929.03	10,000	1429	3150

Please contact Holcim Technical Services at 800-428-4511 for further information.

This sheet is meant to highlight Elevate products and specifications and is subject to change without notice. Holcim takes responsibility for furnishing quality materials that meet published Elevate product specifications or other technical documents, subject to normal manufacturing tolerances. Neither Holcim nor its representatives practice architecture. Holcim offers no opinion on and expressly refuses any responsibility for the soundness of any structure. Holcim accepts no liability for structural failure or resultant damages. Consult a competent structural engineer prior to installation if the structural soundness or structural ability to properly support a planned installation is in question. No Holcim representative is authorized to vary this disclaimer.

Firestone, the brand of premier roofing, wall, and lining systems you know and trust, will be coming to you under a new name: Elevate. During our transition, products carrying the brand name **Firestone** will change to **Elevate** on product labels and packaging, Technical Information Sheets, and elsewhere. Only the brand name is changing. Our products remain the same.

For further information on our brand transition to Elevate, scan the code below with your smartphone, or visit our website: www.holcimelevate.com

